

ABSTRACT OF THE DISCLOSURE

A miniature, unmanned aircraft for acquiring digitized data, transmitting digitized data, or both, having an electrical supply system capable of sustained operation. The aircraft has a fuselage, a wing, a reciprocating piston internal combustion engine, a propeller, control surfaces for controlling flight, each operated by a respective servomechanism, a microprocessor for managing flight control, a GPS receiver, a communications radio frequency transceiver, and data handling apparatus. The data handling apparatus is any one of a data acquisition device for gathering environmental data, a data acquisition device for sensing aircraft altitude or attitude or both, a data relay station, or any combination of these. The data handling apparatus is preferably part of an enclosed module which is readily mounted to and detachable from the aircraft. The electrical supply system includes an engine driven generator, a battery disposed in parallel to the generator, and voltage reducing devices for operating various electrical power consuming components which operate at different voltage levels.